Connecting via Winsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTASXS1656

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 3	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS 4	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 5	MAR 31	LPCI now available as a replacement to LDPCI
NEWS 6	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 7	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS 8	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS 9	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS 10	APR 28	IMSRESEARCH reloaded with enhancements
NEWS 11	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS 12	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 13	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS 14	JUN 06	KOREAPAT updated with 41,000 documents
NEWS 15	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 16	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS 17	JUN 25	CA/CAplus and USPAT databases updated with IPC reclassification data
NEWS 18	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS 19	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS 20	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS 21	JUN 30	STN AnaVist enhanced with database content from EPFULL
NEWS 22	JUL 28	CA/CAplus patent coverage enhanced
NEWS 23	JUL 28	EPFULL enhanced with additional legal status information from the epoline Register
NEWS 24	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 25	JUL 28	STN Viewer performance improved
NEWS 26	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

```
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:33:28 ON 06 AUG 2008

=> File Medline EMBASE Biosis Caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      0.21       0.21

FILE 'MEDLINE' ENTERED AT 16:33:36 ON 06 AUG 2008

FILE 'EMBASE' ENTERED AT 16:33:36 ON 06 AUG 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 16:33:36 ON 06 AUG 2008
Copyright (c) 2008 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 16:33:36 ON 06 AUG 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> S  (raf-1 (3A) RBD) (8A) (variant or mutant or mutated or mutation or mutating
or mutagenesis or substitution or substitute or substituted)
L1           2 (RAF-1 (3A) RBD) (8A) (VARIANT OR MUTANT OR MUTATED OR MUTATION
               OR MUTATING OR MUTAGENESIS OR SUBSTITUTION OR SUBSTITUTE OR SUBS
               TITUTED)

=> S (gtpas or ras) (8A) (binding affinity)
L2          66 (GTPAS OR RAS) (8A) (BINDING AFFINITY)

=> s l1 and l2
L3           0 L1 AND L2

=> d l1 1-2 bib ab

L1   ANSWER 1 OF 2  EMBASE  COPYRIGHT (c) 2008 Elsevier B.V. All rights
     reserved on STN
AN   1999061407  EMBASE
TI   Nuclear magnetic resonance and molecular dynamics studies on the
     interactions of the Ras-binding domain of Raf-1 with wild-type and mutant
     Ras proteins.
AU   Tateno, Masaru; Ebisuzaki, Toshikazu
CS   Computational Science Laboratory, Inst. Phys. and Chem. Res. (RIKEN), 2-1
     Hirosawa, Wako-shi, Saitama, 351-0198, Japan.
AU   Terada, Tohru; Hashimoto, Kyoko; Yokoyama, Shigeyuki (correspondence)
CS   Dept. of Biophysics and Biochemistry, Graduate School of Science,
     University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan.
     yokoyama@y-sun.biochem.s.u.-tokyo.ac.jp
```

AU Smith, Brian O.; Laue, Ernest D.
CS Cambridge Ctr. for Molec. Recog., Department of Biochemistry, University of Cambridge, Tennis Court Road, Cambridge, CB2 1QW, United Kingdom.
AU Cooper, Jonathan A.
CS Fred Hutchinson Cancer Res. Center, 1100 Fairview Avenue, North, Seattle, WA 98109-1024, United States.
AU Ito, Yutaka; Shirouzu, Mikako; Kigawa, Takanori; Takio, Koji; Shibata, Takehiko
AU Yokoyama, Shigeyuki (correspondence)
CS Cellular Signaling Laboratory, Institute Physical Chemical Research, 2-1 Hirosawa, Wako-shi, Saitama 351-0198, Japan. yokoyama@y-sun.biochem.s.u.-tokyo.ac.jp
SO Journal of Molecular Biology, (12 Feb 1999) Vol. 286, No. 1, pp. 219-232. Refs: 74
ISSN: 0022-2836 CODEN: JMOBAK
CY United Kingdom
DT Journal; Article
FS 029 Clinical and Experimental Biochemistry
LA English
SL English
ED Entered STN: 25 Feb 1999
Last Updated on STN: 25 Feb 1999
AB The Ras protein and its homolog, Rap1A, have an identical 'effector region' (residues 32-40) preceded by Asp30-Glu31 and Glu30-Lys31, respectively. In the complex of the 'Ras-like' E30D/K31E mutant Rap1A with the Ras-binding domain (RBD), residues 51-131 of Raf-1, Glu31 in Rap1A forms a tight salt bridge with Lys84 in Raf-1. However, we have recently found that Raf-1 RBD binding of Ras is indeed reduced by the E31K mutation, but is not affected by the E31A mutation. Here, the 'Rap1A-like' D30E/E31K mutant of Ras was prepared and shown to bind the Raf-1 RBD less strongly than wild-type Ras, but slightly more tightly than the E31K mutant. The backbone (1)H, (13)C, and (15)N magnetic resonances of the Raf-1 RBD were assigned in complexes with the wild-type and D30E/E31K mutant Ras proteins in the guanosine 5'-O-(β,γ-imidotriphosphate)-bound form. The Lys84 residue in the Raf-1 RBD exhibited a large change in chemical shift upon binding wild-type Ras, suggesting that Lys84 interacts with wild-type Ras. The D30E/E31K mutant of Ras caused nearly the same perturbations in Raf-1 chemical shifts, including that of Lys84. We hypothesized that Glu31 in Ras may not be the major salt bridge partner of Lys84 in Raf-1. A molecular dynamics simulation of a model structure of the Raf-1 RBD.ovrhdot.Ras.ovrhdot.GTP complex suggested that Lys84 in Raf-1 might instead form a tight salt bridge with Asp33 in Ras. Consistent with this, the D33A mutation in Ras greatly reduced its Raf-1 RBD binding activity. We conclude that the major salt bridge partner of Lys84 in Raf-1 may be Asp33 in Ras.

L1 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1999:134549 BIOSIS
DN PREV199900134549
TI Nuclear magnetic resonance and molecular dynamics studies on the interactions of the Ras-binding domain of Raf-1 with wild-type and mutant Ras proteins.
AU Terada, Tohru; Ito, Yutaka; Shirouzu, Mikako; Tateno, Masaru; Hashimoto, Kyoko; Kigawa, Takanori; Ebisuzaki, Toshikazu; Takio, Koji; Shibata, Takehiko; Yokoyama, Shigeyuki [Reprint author]; Smith, Brian O.; Laue, Ernest D.; Cooper, Jonathan A.
CS Cellular Signaling Lab., Inst. Phys. Chem. Res., 2-1 Hirosawa, Wako-shi, Saitama 351-0198, Japan
SO Journal of Molecular Biology, (Feb. 12, 1999) Vol. 286, No. 1, pp. 219-232. print.

CODEN: JMOBAK. ISSN: 0022-2836.
DT Article
LA English
ED Entered STN: 31 Mar 1999
Last Updated on STN: 31 Mar 1999
AB The Ras protein and its homolog, Rap1A, have an identical "effector region" (residues 32-40) preceded by Asp30-Glu31 and Glu30-Lys31, respectively. In the complex of the "Ras-like" E30D/K31E mutant Rap1A with the Ras-binding domain (RBD), residues 51-131 of Raf-1, Glu31 in Rap1A forms a tight salt bridge with Lys84 in Raf-1. However, we have recently found that Raf-I RBD binding of Ras is indeed reduced by the E31K mutation, but is not affected by the E31A mutation. Here, the "Rap1A-like" D30E/E31K mutant of Ras was prepared and shown to bind the Raf-1 RBD less strongly than wild-type Ras, but slightly more tightly than the E31K mutant. The backbone 1H, 13C, and 15N magnetic resonances of the Raf-1 RBD were assigned in complexes with the wild-type and D30E/E31K mutant Ras proteins in the guanosine 5'-O-(beta,gamma-imidotriphosphate)-bound form. The Lys84 residue in the Raf-1 RBD exhibited a large change in chemical shift upon binding wild-type Ras, suggesting that Lys84 interacts with wild-type Ras. The D30E/E31K mutant of Ras caused nearly the same perturbations in Raf-1 chemical shifts, including that of Lys84. We hypothesized that Glu31 in Ras may not be the major salt bridge partner of Lys84 in Raf-1. A molecular dynamics simulation of a model structure of the Raf-1 RBDcntdotRascntdotGTP complex suggested that Lys84 in Raf-1 might instead form a tight salt bridge with Asp33 in Ras. Consistent with this, the D33A mutation in Ras greatly reduced its Raf -1 RBD binding activity. We conclude that the major salt bridge partner of Lys84 in Raf-1 may be Asp33 in Ras.